<u>**PATENT**</u>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(beaven01.001)

5	**Applicant:**	Douglas F. Beaven	**Confirmation No.:**
	Application No:	09/312,740	**Group Art Unit:** 3623
10	**Filed:**	5/14/99	**Examiner:** Tarae, Catherine M.

Title: *Processing management information*

Commissioner for Patents
15 Alexandria, VA 22313-1450

Reply Brief under 37 C.F.R. 41.41

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Status of claims

Claims 191-211 are pending in the application; claims 1-190 have been canceled in the course of prosecution. Claims 191-211 all stand rejected. There are two independent claims, 198 and 211. Claims 191-197 are dependent from claim 211 and claims 199-210 are dependent from claim 198. Claims 191-194 and 197-211 all stand rejected under 35 U.S.C. 102(e) as being anticipated by Buteau, et al., U.S. 6,442,557, henceforth "Buteau". Claims 195 and 196 stand rejected under 35 U.S.C. 103(a) as obvious over the combination of Buteau and Official Notice that systems for sending messages and systems for maintaining discussions are well known. For the convenience of the Board, the following *Appeal* bases references to the Specification and Figures of USSN 09/312,740 on U.S. Published Patent Application 2004/0186762, which is a CIP of USSN 09/312,740 and contains the complete Detailed Description and Drawing of USSN 09/312,740. The material from USSN 09/312,740 in 2004/0186762 begins at paragraph 0049 and ends at paragraph 0183 and includes FIGs. 1-39.

Grounds of rejection to be reviewed on appeal

The grounds of rejection to be reviewed on appeal are the following:

- the rejection of claims 211 and claims 191-194 and 197 under 35 U.S.C. 102(e) as anticipated by Buteau, et al., U.S. 6,442,557, henceforth "Buteau"

- the rejection of claims 195 and 196 under 35 U.S.C. 103 as obvious over the combination of Buteau and Official Notice that systems for sending messages and systems for maintaining discussions are well known, and

- The rejection of claims 198-210 under 35 U.S.C. 102(e) as anticipated by Buteau.

The rejection of claims 211, 191-194, and 197 is being argued separately from that of claims 198-210; the rejection of claims 95 and 96 stands and falls with the rejection of claims 211, 191-194, and 197.

Argument

Applicants' *Appeal Brief* has already demonstrated why the grounds of rejection which Examiner sets forth at pages 4-8 of her *Answer* are without foundation; this *Reply* is a rebuttal of Examiner's *Response to Argument* at pages 9-12 of Examiner's Answer. In her *Response*, Examiner finds three of Applicant's arguments unpersuasive (page 9 of the *Answer*):

1. "The Buteau reference does not permit a model entity to belong to two different types of hierarchies.

2. The Buteau reference is not a system for supporting management of a collaborative activity by persons involved therein, *the persons not being specialists in information technology.*

3. The graphical user interface (GUI) of the Buteau reference does not disclose allowing *persons not being specialists in information technology* to employ the GUI to control access to the model entity, assign the model entity to a location in a hierarchy or view model entities as ordered by a value in the information concerning the collaborative activity to which the activities give access.

It should first be pointed out that points (2) and (3) above are a mischaracterization of Applicant's argument. As set forth at the bottom of page 8 and the top of page 9 of Applicant's *Appeal Brief*, the Buteau reference does not disclose Applicant's " system for supporting management of a collaborative activity by persons involved therein, the persons not being specialists in information technology" because the language " persons not being specialists in information technology" is a limitation of Applicant's "graphical user interface" of claim 211 (the antecedent of "persons" in line 10 is the "persons in line 2) and of the "interface" of claim 198. Buteau's GUI for non-technical people is the one shown in Buteau's FIG. 8 and described at col. 22, lines 20-31 of Buteau. That GUI simply does not permit "a user[] of the system who [is] not a specialist[] in information technology" to perform the operations set forth at lines 10-20 of Applicant's claim 198 or the complete set of operations which characterize the GUI set forth at lines 10-17 of claim 211.

The issues between Examiner and Applicant are thus in fact

- Whether the Buteau reference in fact permits a model entity to belong to two different types of hierarchies; and

- Whether the language "the persons not being specialists in information technology" limits the "graphical user interface" of claim 211 or the "interface" in the method steps of claim 198.

Hierarchies of entities in Buteau's model and Applicants' model

The disclosure of Buteau speaks only of hierarchies of organizations. Buteau's FIG. 7, an entity-relationship diagram showing the relational database tables used to represent Buteau's model, includes four tables which have the links back to themselves which are used in relational database tables that represent hierarchies to represent parent-child relationships between the entities making up the hierarchy. The four tables are Organization table 290, Info Format table 570, Info Type table 540, and Info Repository table 520. Nothing in the disclosure of Buteau indicates that an entity represented by a row in any of these tables can simultaneously have a hierarchical relationship (i.e., be a parent or a child) in another of the hierarchies, as required by both claim 198 and claim 211. At most, an entity which belongs to a hierarchy may also belong to a subhierarchy of that hierarchy (Buteau col. 10, lines 6-8). Put another way, parent-child relationships between entities which belong to a hierarchy in Buteau are limited to parent-child relationships within the hierarchy.

In her rejection, Examiner refers Applicant to Col. 10, lines 10-27 of Buteau, which read as follows:

> Organizations are often modeled as having relationships directly with other organizations (beyond their hierarchical structure); for example, one organization may be a customer of another organization. However, these relationships should always exist in the context of some process that involves both organizations. Since the model according to the present invention also includes process as an explicit entity, organization relationships are included indirectly as a pair of relationships between organizations and processes (i.e., organization roles).

> The organization roles entity 300 describes how the organizations within

an enterprise interact with each other through many processes. For a given process, one organization may perform it, another may monitor it, others may act as customers or suppliers, and so on. The organization role entity 300 records this relationship between a particular organization role type, organization, and process. In some cases, a particular role may be restricted to certain types of people within an organization. Each instance of this entity is uniquely identified by a primary key using an arbitrary integer. The only attribute of an organization role is an explanatory annotation (text). Each organization role entity 300 must be associated with exactly one instance of an organization role type entity 350, organization entity 290, and process entity 360. Also, the organization role entity 300 may be used by the organization role people entity 270. Each organization role people instance must have exactly one organization role. This entity 300 is necessary to represent the relationship between organizations and processes.

The cited location states expressly that relationships between organizations in Buteau "should always exist in the context of some process that involves both organizations" (col. 10, lines 14-15), i.e. direct relationships between an organization and other organizations are limited to parent-child relationships in the hierarchy to which the organization belongs. Relationships other than parent-child relationships between organizations in Buteau are by way of processes, as is shown in the attached FIG. B, where an organization 290(A) (see FIG. 7) and another organization 290(D) in a hierarchy of organizations have a relationship other than a parent-child relationship via a process entity 360(X). Each of the related organizations is related to the process entity via an organization role entity 300 which describes the organization's role in the process. Neither the organization role entities 290 nor the process entities 360 form hierarchies and the relationships between organizations which are established via processes do not affect the organizations' parent-child relationships.

FIG. A shows hierarchies of entities in Applicant's model of a collaborative activity. The hierarchies shown are based on the goal hierarchy shown in Applicants' FIG. 3, the domain hierarchy shown in Applicants' FIG. 8, and the domain-goal hierarchy shown in FIG. 16. Parent-child relationships between the domains of the domain hierarchy are shown by a solid line; such relationships between the goals of the goal hierarchy are shown by a dashed line; such relationships between goals of the goal hierarchy and

domains of the domain hierarchy are shown by a heavy dashed and dotted line. The users of Applicant's system, including "persons not being specialists in information technology", can create and edit parent-child relationships between entities belonging to domain hierarchies, between entities belonging to goal hierarchies, and between entities belonging to goal hierarchies and entities belonging to domain hierarchies. The users can thus organize their collaboration in terms of results to be achieved (goals), functional areas of the collaboration (domains), and goals as they are related to domains. The users can further view the collaboration in terms of goals, domains, and goals as they are related to domains.

Buteau's disclosure and Applicants' claims

Even the most cursory comparison of FIGs. A and B and of the figures of Buteau and Applicant's application makes it abundantly clear that Buteau's model has nothing like the hierarchical relationships between goal entities in goal hierarchies, domain entities in domain hierarchies, and goal entities and domain entities of Applicant's model. Further, even the most cursory examination of claim 198 shows that the claim clearly sets forth the fact that a user may make a model entity and may relate the model entity via a hierarchical relationships with two different hierarchies (claim 198, lines 10-20). Similarly, even the most cursory examination of claim 211 shows that the claim clearly sets forth that a model entity can simultaneously belong to hierarchies having different types (lines 7-9) and that the graphical user interface permits the user to "assign[] the model entity to a location in a hierarchy" and to "view[] model entities as ordered by a hierarchy to which the entities belong" (lines 10-17). Because Buteau does not disclose the foregoing limitations of claims 198 and 211 and indeed, given the differences in the models, *cannot* disclose those limitations, Buteau cannot anticipate claims 198 and 211 and those claims and all of the claims dependent from them are patentable over the reference.

"persons not being specialists in information technology" as a claim limitation

The first thing that needs to be pointed out here is that as is apparent from the foregoing discussion, the patentability of Applicant's claims 198 and 211 *does not* depend on

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whether the limitation represented by the language "persons not being specialists in information technology" is given patentable weight. On the other hand, if that limitation *is* given patentable weight, it provides an independent reason why Buteau does not anticipate the inventions of claims 198 and 211.

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In the course of the prosecution, Examiner has refused to consider the language "persons not being specialists in information technology" as a claim limitation for a variety of reasons. In response to the RCE of 8/7/2006, Examiner refused to consider the language as a limitation because it was in the preamble. When Applicant pointed out that it limited

10 the interface used to perform the method steps of claim 198 and the graphical user interface element of claim 211 and consequently had to be treated as a claim limitation, Examiner maintained that the user's "title" did not affect the structural elements and manipulative functionality of the system and analogized the language to "non-functional descriptive data". Applicant then pointed out that the quality of a user interface is crucial

15 to the usability of technology and that the fact that the language in question specified the quality of the graphical user interface in the method steps of claim 198 and of the graphical user interface element of claim 211 gave it patentable weight. Applicant further pointed out that the language was inclusive, not exclusive. The limitation was that "persons not being specialists in information technology" *could* use Applicants'

20 system for supporting collaborative activities, not that others *couldn't*, and that the language was therefore functional as applied to the graphical user interface

In her *Answer*, Examiner maintained her position that the "title" of the user did not affect the structural elements and manipulative function of the system and again

25 analogised the language "persons not being specialists in information technology" to "non-functional descriptive data" and cited *In re MAX A. GULACK*, 703 F.2d 1381, 1385 (Fed. Cir. 1983); IN *RE EDWARD S. LOWRY* 32 F.3d 1579 (Fed. Cir. 1994); and *IN RE JOHN NGAI and DAVID LIN*, 367 F.3d 1336, 1336 (Fed. Cir. 2004). The first issue here is whether the language "persons not being specialists in information

30 technology" can reasonably be termed a "title". In the context in which it appears, it is not a "title", but rather a description of the skill level required of certain users of

Applicant's system for performing collaborative activity. The description of the skill level is then used to limit the claimed GUI, namely, the GUI is one that *can be used* by "persons not being specialists in information technology". As Examiner is well aware and as is clearly demonstrated by the GUI of Buteau's FIG. 9, not all GUIs are usable by "persons not being specialists in information technology", and the fact that Applicant's GUI *is usable* by such persons to perform the operations set forth in claims 198 and 211 clearly sets forth a functional distinction between Applicant's GUI and Buteau's GUIs of FIG. 9, which is not usable by "persons not being specialists in information technology", and of FIG. 8, which is usable by "persons not being specialists in information technology" but does not permit such persons to perform all of the operations set forth in either claim 198 or claim 211. Because the language "persons not being specialists in information technology" limits the *function* of Applicants' GUI, it is a perfectly acceptable claim limitation and is therefore to be given patentable weight.

The cases cited by Examiner confirm the foregoing conclusion. In *Gulack*, the invention was a circular band which was printed with a sequence of digits that could be used to perform magic tricks or display various aspects of number theory. The court found that because the sequence of digits was functionally related to the band, the sequence of digits was entitled to patentable weight. By the logic of Gulack, because the limitation "persons not being specialists in information technology" is functionally related to Applicant's GUI in the claims, the limitation is entitled to patentable weight.

Lowry's invention was a data structure. The issue was whether the data structure could distinguish over the prior art. Because the data structure performed a function, the data structure could so distinguish. The limitation "persons not being specialists in information technology" is of course not a data structure. It does, however, functionally limit Applicants' GUI. Lowry thus confirms that because the limitation "persons not being specialists in information technology" is functionally related to Applicant's GUI in the claims, the limitation should be given patentable weight.

Ngai's "invention" was a kit that differed from an existing product only in that it contained printed directions for a patentable new use of the existing product. Citing *Gulack*, in which the sequence of numbers distinguished over the prior art because the sequence was functionally related to the band, the court found that Ngai's new set of printed directions did not depend on the kit and the kit did not depend on the new set of printed directions, that there was therefore no functional relationship between the kit and the printed directions, and that the printed directions consequently could not patentably distinguish the invention from the prior art. The limitation "persons not being specialists in information technology" is also not a set of directions. However, because the Applicant's limitation functionally limits Applicant's GUI as claimed, the teaching of Ngai with regard to Applicant's limitation is the same as that of Gulack and Lowry: that Applicant's limitation is to be given patentable weight in distinguishing Applicant's GUI from that of Buteau.

Conclusion

Applicant has rebutted Examiner's *Response to argument* and has again demonstrated that Buteau does not disclose hierarchies of entities in which an entity may belong to more than one hierarchy and that the claim limitation "persons not being specialists in information technology" sets forth a functional limitation of Applicant's GUI and is therefore entitled to patentable weight in distinguishing Applicant's GUI from the GUIs of Buteau. Because Buteau does not disclose hierarchies of entities in which an entity may belong to more than one hierarchy as set forth in claims 198 and 211 and additionally because Buteau's GUIs are not usable by "persons not being specialists in information technology" to perform the operations which such persons may perform using Applicant's GUI, claims 198 and 211 are not anticipated by the reference. Applicant consequently again respectfully requests that the Board of Appeals reverse Examiner with regard to all of her rejections and remand the application to Examiner for further processing as indicated by the reversals.

Respectfully submitted,

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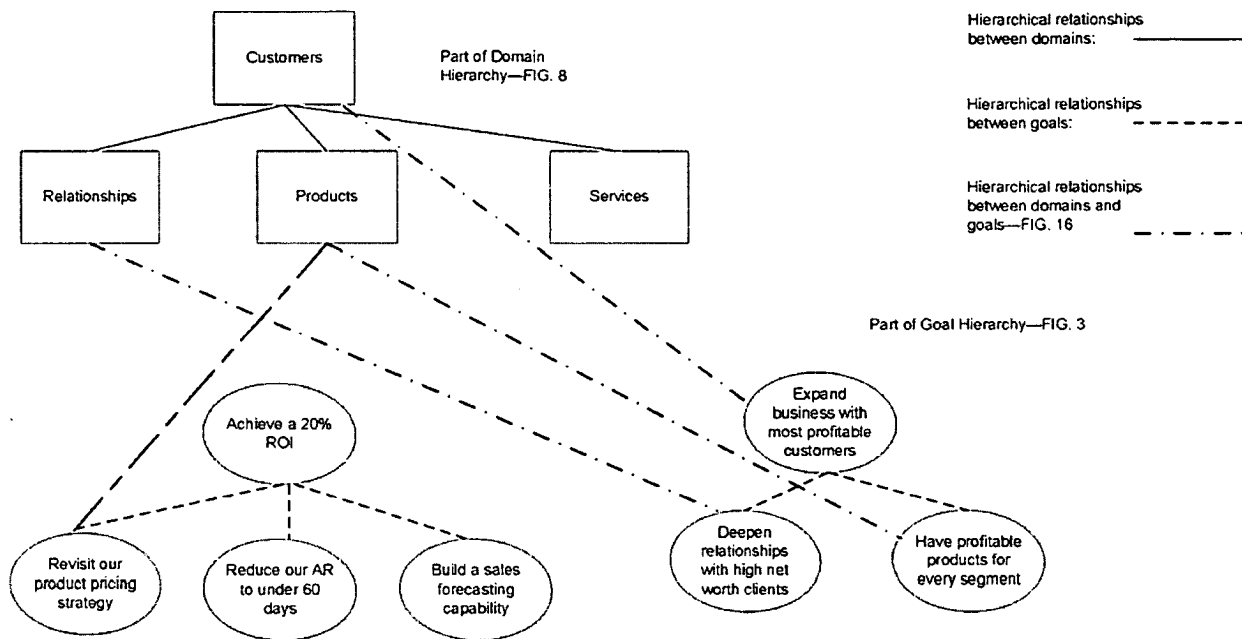Voice: (978) 948-7632
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Customers

Part of Domain
Hierarchy—FIG. 8

Relationships

Products

Services

Hierarchical relationships
between domains:

Hierarchical relationships
between goals:

Hierarchical relationships
between domains and
goals—FIG. 16

Part of Goal Hierarchy—FIG. 3

Achieve a 20%
ROI

Expand
business with
most profitable
customers

Revisit our
product pricing
strategy

Reduce our AR
to under 60
days

Build a sales
forecasting
capability

Deepen
relationships
with high net
worth clients

Have profitable
products for
every segment

Fig. A—Relationships of model entities in USSN
09/312,740

organization
290(A)

organization
290(B)

organization
290(C)

organization
290(D)

Organization
Role 300(K)

Organization
Role 300(L)

process 360(X)

hierarchical relationship: ⎯⎯⎯⎯⎯

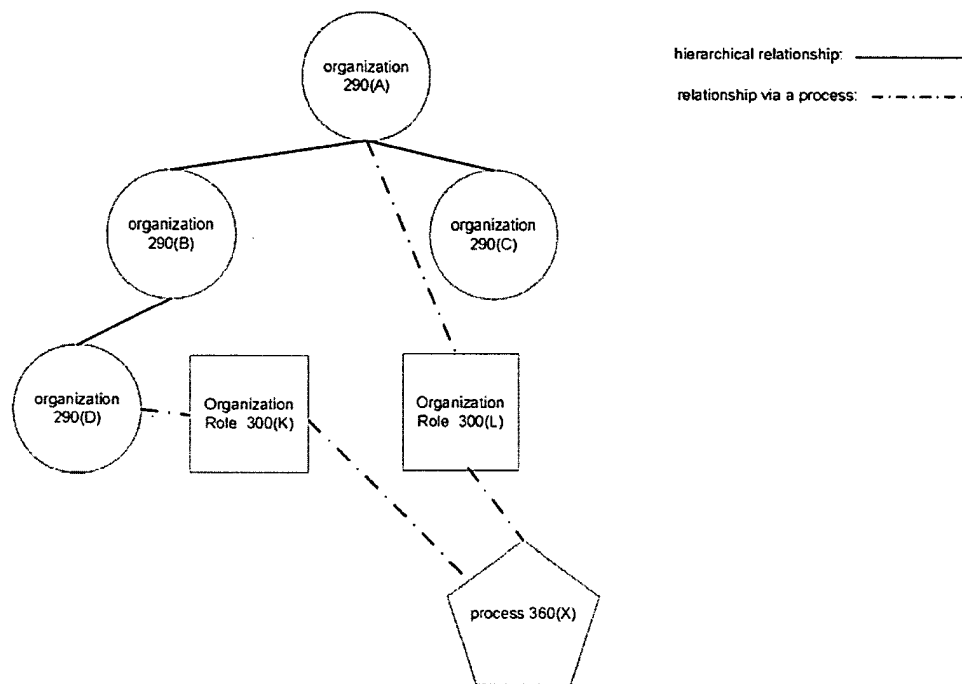relationship via a process: ⎯ · ⎯ · ⎯ · ⎯ ·

Fig. B: Relationships between Organizations and Processes in
Buteau: FIG. 7 and Col. 10, lines 10-27